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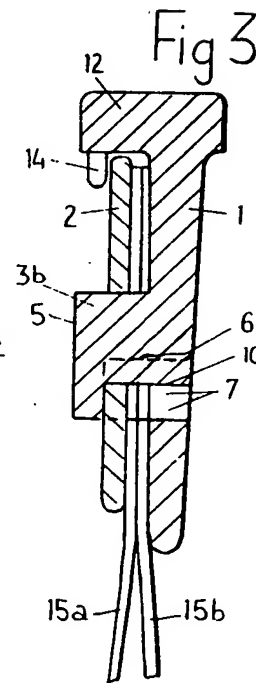
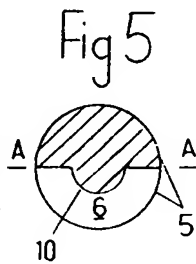
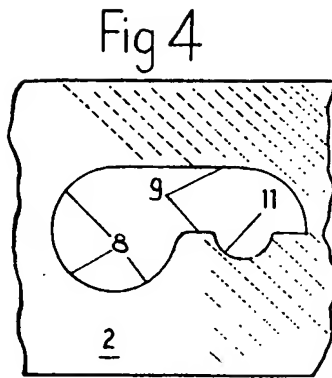
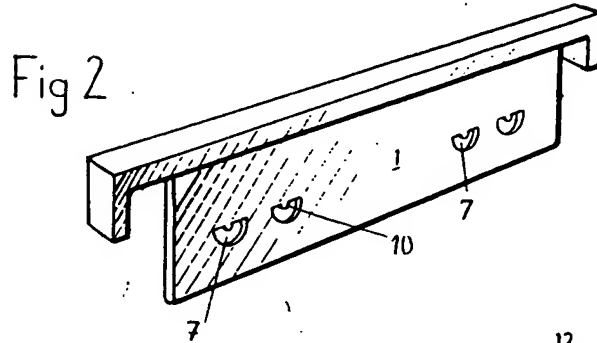
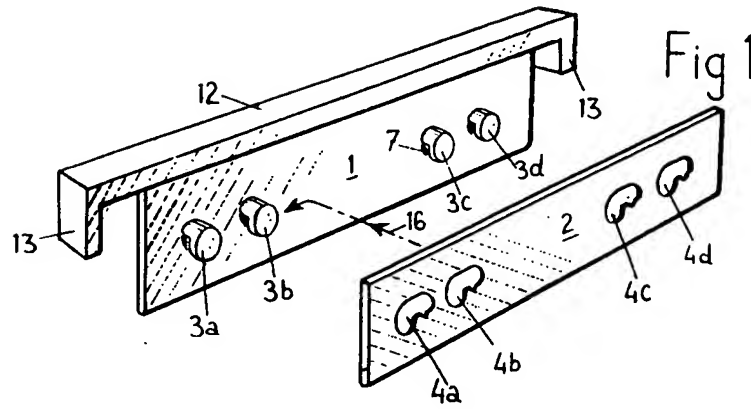
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872,635
1 SHEET

COMPLETE SPECIFICATION

This drawing is a reproduction of
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Italy 579870/58 Disc
France 1161831/58 Disc

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PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improved Device for Fixing Sheets of Paper, Cardboard or the like

I, GUY DUCERF, a French citizen, of 73, rue de Richelieu, Paris 2eme, France, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to devices for fixing sheets of paper, cardboard or the like, particularly for supporting the file holding means of a suspension filing system. It appears to be of particular interest in its application to office equipment, for example in order to form types of binding or filing clips, or supports for the sheets of memorandum-blocks, or holders for indices, labels or the like. It appears to be of even more interest in its application to the formation of supporting bars for suspension filing systems. In order to simplify the following description, reference will frequently be made to this last application; but it should be understood that the invention has various other applications, particularly to the various office articles and accessories which have just been mentioned.

The invention provides a device for fixing sheets of paper, cardboard or the like, particularly for supporting the file holding means of a suspension filing system comprising two plate like members between which one or more of the sheets are inserted, one of said members being provided with at least two projecting pins, a portion of each pin adjacent the member being recessed, and provided with an aperture adjacent the recessed portion of each pin which aperture comprises a continuation of said recessed portion, and the second member being provided with slots which cooperate with the pins, each slot comprising a relatively wide portion and a narrower portion which grips the recessed portion of the pin, the pins being engaged first in corresponding apertures in the sheets to be fixed, then being engaged in the wide portions of the slots in the second member,

and finally one of said two members being displaced by sliding in relation to the other of said members until the recessed portions of the pins engage the narrower portions of the slots and the two members are thereby locked together.

The above and other features of the invention will be more clearly understood from the following description of one embodiment of the invention. Reference is made to the accompanying drawings in which:—

Figure 1 is a perspective view of the two members of a supporting bar for a suspension filing system;

Figure 2 is a rear view of the top member of Figure 1;

Figure 3 is an enlarged sectional view substantially perpendicular to Figure 1, the two members being in their assembled position;

Figure 4 is a detail view of a slot;

Figure 5 is a sectional view through the reduced or recessed portion of one of the pins.

The two members 1 and 2 which form a support bar for a suspension filing system or the like, are manufactured from a moulded synthetic resin.

In this embodiment the member 1 is longer than the member 2, constituting the greater material portion of the supporting bar, and is provided with pins 3a, 3b, 3c, 3d. It is to be understood that the shape and relative dimensions of the two members which cooperate together, may be varied according to the intended use and further that the pins may be provided in either member.

The pins 3a, 3b, 3c, 3d the detailed construction of which is described hereinafter cooperate with slots 4a, 4b, 4c, 4d provided in the member 2.

As can be seen in the drawings, each pin is substantially cylindrical in shape, a portion adjacent the member 1 being cut away, giving the pin a stepped profile.

This profiling of the pins may be obtained

[Price 3s. 6d.]

in several ways, depending largely on the way in which the supporting bar is manufactured. In certain cases, whether said supporting bar is metallic or of moulded material, the pins may be manufactured separately and subsequently fixed to the member e.g. by riveting. It appears to be advantageous however for the member and the pins to be manufactured as a single unit, by moulding a synthetic resin. In such a case, it is preferred to form each of the pins in a manner similar to that which is illustrated in Figures 1 and 5 and in Figure 3 in more detail.

The pin is in the form of a small cylinder 5, a part of which is recessed at 6 substantially over the whole of one side of a diametral plane A—A (Figure 5). Moreover, in order to permit this manufacture by moulding in a single piece, the member 1 of the bar includes an aperture 7 opposite each of the pins, the dimensions of said aperture being the same as those of the recess 6 in the body of the pin; in fact, it is in these two recesses that the corresponding male members of one of the parts of the mould fits during the moulding, extraction from the mould then taking place by a relative displacement which is effected in the horizontal direction of Figure 3.

The shape of the slots 4a, 4b etc., depends in particular on the shape of each pin and as has been mentioned the pins may be of various shapes, for example, the free end of each pin may have a square or polygonal outline and not a circular outline. If the shape of each pin is that illustrated in the drawings, it is recommended that the shape of the slots should be as illustrated on the member 2 in Figure 1 and shown in more detail in Figure 4. Each of said slots comprises, in the left-hand portion of the figures, an aperture 8 in which the head or free end of the corresponding pin is engaged; on one side of the aperture 8 (in this embodiment the right-hand side) an aperture 9 which is slightly elongated in a direction parallel to the direction in which the member 2 has to be moved to bring it into locked engagement with the member 1, the height of said aperture 8 corresponding at least substantially to the height of the solid portion of the recessed body of the pin.

Pins and slots which cooperate thus to form finally a supporting bar for a suspension file or other fixing system or means of gripping papers or the like, may, to advantage, be supplemented further by a resilient boss and corresponding seating for improving the locking of the two members in the fixing or gripping position in which they are locked together. The resilient boss 10 in this embodiment is provided on the body of each of the pins 3a, 3b, 3c and 3d in their recessed portion, and, when the two members 1 and 2 have been brought by sliding into the final

locking position, enters a small corresponding seating 11 which in this case, is provided in each of the slots 4a, 4b, 4c and 4d. It is to be understood that the shape of the said bosses and seatings may be varied and that they may be interchanged as regards the members (pins and slots) on which they are provided.

The structural members being thus constructed as described, the supporting bar comprises an upper longitudinal member 12, ending at each end in a portion 13 bent down at right angles. The rails or the like on which the supporting bars of suspension filing systems normally rest are inserted between the said portions 13 on the one hand and the member 1 on the other hand.

There may also be provided below the member 12, at least one stud or the like 14, (Figure 3), which ensures the maintenance of the upper edge of the member 2 in a satisfactory position.

A supporting bar so constructed is used as follows: the two members 1 and 2 are initially separated from one another (as in Figure 1) and the two upper ends 15a and 15b (Figure 3) of the desired file "hammock" or hammocks are placed over the pins 3a, 3b, 3c, 3d, suitable perforations being provided for this purpose. The enlarged portion 8 of the slots 4a, 4b, 4c, 4d in the member 2 is then placed in front of the pins, and the member 2 is pressed in; the latter is then moved sideways in the direction which leads first to the engagement and finally to the locking of the recessed body 6 of the pins in the narrow portion 9 of the slots. The movements of the member 2 in relation to the member 1 are illustrated diagrammatically by the arrow 16 in Figure 1.

As regards the perforation to be made in the edge of a suspension-file "hammock", or any other paper or the like adapted to be fixed or gripped by a system according to the invention, it will be noted on the one hand that the perforation may be made substantially of the same diameter as that of the pins or the like and on the other hand that after the tightening of the system, it is normally not the perforations which bear the stresses liable to be exerted on the paper in question. It follows that the latter does not run the risk of being exposed to damage which would result from its combination with the fixing or hooking system, the system according to the invention protecting it, on the contrary, from such a risk.

A system of fixing or gripping sheets of paper or the like, constructed according to the invention, may also comprise various improvements. Thus, in certain cases, it is an advantage to provide the possibility of fixing or gripping between the members such as 1 and 2, variable thicknesses of paper, cardboard or the like, under conditions such that

the grip remains appropriate. The means provided for this purpose may comprise, for example:—

5 (a) a set of several members 1 or 2 having pins of different lengths, or members such as 2, which are of different thicknesses;

10 (b) a variation, progressively or discontinuously, of the thickness of the member 2 along the elongated portions 9 between the two extremities of its slots 4, in the same manner for each slot and in such a manner that a greater or lesser amplitude of the displacement of the member 2 with respect to the member 1 leaves a larger or smaller thickness available between the two members for the papers gripped between them; or

20 (c) resilient means such as a spring placed directly or indirectly with a block between the members 1, 2, which permit the insertion of a greater or smaller thickness of papers or the like between the two members 1 and 2.

The arrangement in accordance with this invention has many advantages. For instance: the advantage of ensuring easy fixing, without slipping, of the papers or the like which they may grip; this advantage appears to be of particular application on the one hand for forming supporting bars for files adapted to be filed in an oblique or inclined position; and on the other hand for forming connecting and indicating members between adjacent edges of two files in the arrangement of files of the "continuous" type (whether the supporting bars are then horizontal or inclined); the advantage of lending themselves, in a particularly satisfactory manner, on the one hand to manufacture in synthetic resins, resulting in various natural advantages in manufacture and use (for example: silence in the displacement of the supporting bars of files on metal rails or the like; and the ease of sliding under the action of simple manual manipulation); and of lending themselves on the other hand to the application of a label-protecting sheath, or of an indicator slide or the like, of synthetic laminated material, which may or may not be transparent, as is common, *per se*, on other file-supporting bars or office articles; and that of being relatively cheap to produce.

WHAT I CLAIM IS:—

1. A device for fixing sheets of paper, card-board or the like, particularly for supporting the file holding means of a suspension filing

system comprising two plate like members 55 between which one or more of the sheets are inserted, one of said members being provided with at least two projecting pins, a portion of each pin adjacent the member being recessed, and provided with an aperture adjacent the recessed portion of each pin which aperture comprises a continuation of said recessed portion, and the second member being provided with slots which cooperate with the pins, each slot comprising a relatively wide portion and a narrower portion which grips the recessed portion of the pin, the pins being engaged first in corresponding apertures in the sheets to be fixed, then being engaged in the wide portions of the slots in the second member, and finally one of said two members being displaced by sliding in relation to the other of said members until the recessed portions of the pins engage the narrower portions of the slots and the two members are thereby locked together.

2. A device as claimed in Claim 1, characterised in that the member on which the pins are provided is manufactured of synthetic resin by moulding, said pins constituting an integral part of the moulding.

3. A device as claimed in Claim 1 or Claim 2 comprising a resilient boss and corresponding seating for improving the locking of the two members in the position in which the two members are locked together.

4. A device as claimed in Claim 3, wherein said resilient boss is provided on a pin and said corresponding seating on the corresponding slot.

5. A device as claimed in any one of Claims 1 to 4, for use in a suspension filing system wherein one of the two members comprise an upper longitudinal member terminating at each end in a portion bent down at right angles.

6. A device as claimed in any one of Claims 1 to 5, wherein one of the two members is provided with a stud which cooperates in locating the other member when the latter is connected to the former.

7. A device for fixing sheets of paper, card-board or the like substantially as herein described with reference to the accompanying drawings.

ERIC POTTER & CLARKSON,
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